

# EUROPEAN PATENT OF E

**Patent Abstracts of Japan**

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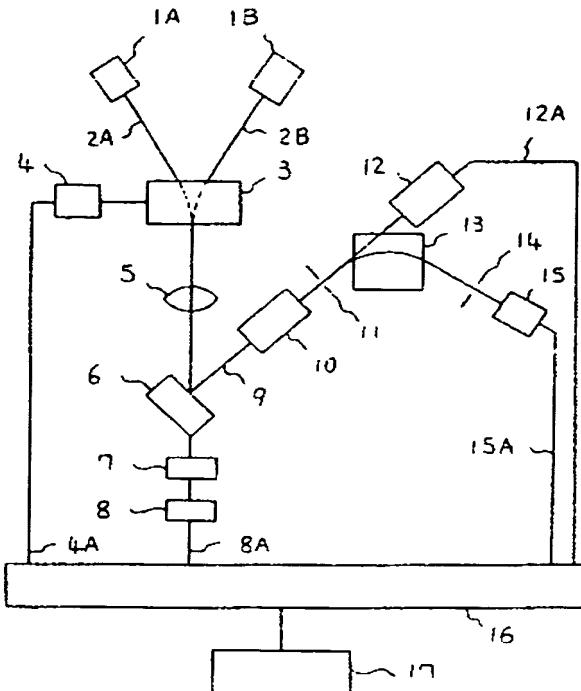
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APPLICANT : HITACHI LTD;

INVENTOR : IZUMI EIICHI;

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TITLE : SECONDARY ION MASS SPECTROMETER



**ABSTRACT :** PURPOSE: To permit easy decision of the concn. of even a sample having no titled sample by correcting secondary ion mass spectrometry (SIMS) output with ion scattering spectrochemical (ISS) output so as to eliminate the dependency of SIMS on the ionization rate.

**CONSTITUTION:** Primary ion generating sources 1A, 1B generate a light mass ion 2A and anion 2B for analysis respectively. A primary ion separator 3 select the ions 2A, 2B and feed the primary ions selectively to a projection system 5. The conditions for selection are matched by a driving source 4 of the separator 3 at this time. A secondary ion 9 is released when the primary ion is projected to the sample 6. The ion 9 enters a detector 15 via an energy separator 10, an energy separating slit 11, a mass separator 13 and a separating slit 14. Said detector detects the signal of the mass spectrum of the ion 9 and a detector 12 behind the slit 11 detects the signal of an energy distribution. The two signals 12A, 15A are inputted through a control means circuit 16 to various arithmetic processing outputters 7 which correct the output of SIMS with ISS. A quantitative determination characteristic is thereby generated in the SIMS data and the decision of the sample concn. is facilitated.

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